

Metropolitan Nashville - Davidson County

Multi-Hazard Mitigation Plan

APPENDIX A – PLANNING PROCESS

The DMA planning regulations and guidance ardently stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the process. The Community Planning Team (CPT) is composed of Metro staff and stakeholders. The following members participated on the Community Planning Team:

Attendee	Agency / Company	Phone	E-mail
Richard T. Byrd	OEM	862-8530	Richard.Byrd@nashville.gov
Kevin Penney	OEM	862-8530	Kevin.Penney@nashville.gov
Tom Palko	MWS	862-4510	Tom.Palko@nashville.gov
Danny Smith	MWS	862-4799	Daniel.Smith@nashville.gov
Stan Robinson	MWS	862-4516	Stan.Robinson@nashville.gov
Jim Tarpy	MWS	862-4503	Jim.Tarpy@nashville.gov
Michael Hunt	MWS	880-2420	Michael.Hunt@nashville.gov
Winston Smith	NES	747-3777	wsmith@nespower.com
Kim McDonough	Planning	862-7181	Kim.McDonough@nashville.gov
Ryan Latimer	Metro Planning	862-7214	Ryan.Latimer@nashville.gov
Manley Biggers	Metro Codes	862-6521	Manley.Biggers@nashville.gov
Wade Hill	Metro Codes	862-6520	Wade.Hill@nashville.gov
Ronald Holt	Metro Fire	862-5230	Rholt@nashville.gov
Floyd Hyde	Metro Police	880-3015	Floyd.Hyde@nashville.gov
Larry Vannozzi	National Weather Service	754-8500 ext. 222	Larry.Vannozzi@noaa.gov
Jerry Orchanian	National Weather Service	754-8506 ext. 223	Jerry.Orchanian@noaa.gov
Michael Murphy	National Weather Service	754-8506 ext. 228	Michael.Murphy@noaa.gov

**D
R
A
F
T**



DMA planning regulations and guidance emphasize stress public participation in the mitigation planning process. This is partially accomplished by inviting public “stakeholders” to participate as a public input advisory committee. The Stormwater Regulation Review Committee (SWR2C) was established for a dual purpose:

1. To advise Metro Water Services (MWS) on revisions and enhancements to stormwater management regulations and associated processes; and
2. To participate in the development of a Hazard Mitigation Plan that will identify protective and mitigative measures that will lessen the exposure to future hazard losses, while contributing to other community goals and objectives as identified in other community plans, policies, and regulations.

The following members participated on the SWR2C:

Attendee	Agency / Company	Phone	E-mail
Hughes, Chester	Council Member	741-1718	chester.hughes@nashville.gov
Gotto, Jim	Council Member	482-3815	jim.gotto@nashville.gov
Coleman, Sam	Council Member	741-9191	sam.coleman@nashville.gov
Allen, Tom	SW Management Committee	383-8420	tallen@neel-schaffer.com
Mathews, Jean	Erosion Control Specialist	210-2336	wgectn@comcast.net
Hayworth, Kyle	Corps of Engineers	736-5948	Kyle.Hayworth@LRN02.USACE.ARMY.MIL
Barge, Dan III	Engineer	356-9911	db3@bargecauthen.com
Goodrum, Jack	Contractor	254-5461	jgoodrum@hardaway.net
Sheley, John	Home Builder	377-1055	jshaley@hbamt.net
Galbreath, G. Dodd	Environmentalist	837-5492	dodd.galbreath@state.tn.us
Simmons, Kay	Greenways	255-3380	kay.simmons@mnps.org
Farnsworth, Margo	Citizen	382-4443	screendoor@bigfoot.com
Seals, Jeanece	Neighborhood Association	532-7188	jeanece.seals@state.tn.us
Hughes, Mike	Citizen	890-7901	mhughes@sec-civil.com
Howard, Carla	Citizen	833-2120	Not available
Woods, Robert	Citizen	726-0540	Not available

**D
R
A
F
T**



COMMITTEE RESOLUTIONS

***D
R
A
F
T***



Insert Resolution

***D
R
A
F
T***



MEETING MINUTES

The CPT met six times during the planning process. Meeting dates were scheduled for the 4th Thursday of each month:

- January 9th – Kickoff Meeting;
- April 22nd – Hazard Identification;
- May 27th – Risk Assessment and Goal Setting;
- June 24th – Review Possible Mitigation Activities;
- July 29th – Review Possible Mitigation Activities; and
- September 16th – Draft Plan.

The PAIC met twice during the planning process. Meeting dates were also scheduled for the 4th Thursday of each month:

- Introductory Materials and Hazard Identification Information mailed to PAIC Members
- June 24th – Kickoff Meeting and Review of Goal Setting
- August ??th – Review Draft Plan

***D
R
A
F
T***



***D
R
A
F
T***

(This page has been left intentionally blank.)



MEETING MINUTES

Metropolitan Nashville and Davidson County

Multi-Hazard Mitigation Plan

MEETING #1 PROJECT KICKOFF MEETING

10:00 – 11:30 AM, January 9, 2004

1. Introductions

The kick-off meeting was attended by the following:

Attendee	Agency / Company	Phone	E-mail
Byron Hinchey	AMEC	333-0630	Byron.Hinchey@amec.com
Richard T. Byrd	OEM	862-8530	Richard.Byrd@nashville.gov
Kevin Penney	OEM	862-8530	Kevin.Penney@nashville.gov
Tom Palko	MWS	862-4510	Tom.Palko@nashville.gov
Danny Smith	MWS	862-4799	Daniel.Smith@nashville.gov
Stan Robinson	MWS	862-4516	Stan.Robinson@nashville.gov
Jim Tarpy	MWS	862-4503	Jim.Tarpy@nashville.gov
Michael Hunt	MWS	880-2420	Michael.Hunt@nashville.gov
Cindy Popplewell	AMEC	333-0630	Cynthia.Popplewell@amec.com
Clancy Philipsborn	AMEC	(303) 742-5333	Clancy.Philipsborn@amec.com

2. Meeting Folder Review

Project notebooks were distributed to the kick-off meeting attendees. The notebook contains the project scope; DMA 2000 federal regulations; and Meeting #1 agenda and slide presentation. The project notebooks are intended to organize and assist the Community Planning Team in the plan preparation process.

3. Mitigation, Mitigation Planning, & the Disaster Mitigation Act Requirements

Slide presentation discussed DMA regulations, the planning process, and outlined planning steps #1 – Organization; #2 – Public Input; and #3 – Coordination with Other Agencies. All slides are included in the project notebook, behind tab 1.



***D
R
A
F
T***

4. The Role of the Community Planning Team

The DMA planning regulations and guidance ardently stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the process. “Participation” means local government representatives will:

- Attend the Community Planning Team meetings;
- Provide available data that is requested by AMEC;
- Review and provide/coordinate comments on the DRAFT plans;
- Advertise, coordinate and participate in the public input process; and
- Coordinate the formal adoption of the plan by Metro Council and/or local City Council, as appropriate.

The make up of the Community Planning Team (CPT) was discussed. The CPT will be composed of Metro staff and stakeholders. The following departments were suggested to compose the team:

Department	Representative
Mayor’s Office of Emergency Management	Kevin Penney
MWS Stormwater Division	Tom Palko
	Danny Smith
	Stan Robinson
	Jim Tarp* [*]
Metro Public Works	To be selected
Metro Codes Administration	To be selected
Metro Planning Department	To be selected
Nashville Electric Service	To be selected
Satellite Cities	
Belle Meade	To be selected
Berry Hill	To be selected
Forest Hills	To be selected
Goodlettsville	To be selected
Lakewood	To be selected
Oak Hill	To be selected
Ridgetop	To be selected

* CPT Chair

Each municipality (Satellite City) that wants the *Multi-Hazard Mitigation Plan* to qualify them for FEMA mitigation grants or Community Rating System credit must have at least one representative on the CPT.



The CPT is expected to meet five times during the planning process. Suggested dates for the remaining four meetings include:

- March 18th – 3rd Thursday of the Month;
- April 22nd – 4th Thursday of the Month;
- May 27th – 4th Thursday of the Month; and
- June 24th – 4th Thursday of the Month.

5. Planning for Public Input

To maximize CRS credits, a 50/50 mixture of community officials and public “stakeholders” is required. This will be accomplished by inviting public “stakeholders” to serve on a “Public Input Advisory Committee” (PIAC) to the CPT. The PIAC will be comprised of an equal or greater number of representatives than the CPT.

PIAC meetings are suggested to coincide with the CPT and should be scheduled following the CPT meeting.

The make up of the Public Input Advisory Committee was also discussed. The following stakeholders were suggested to compose the PIAC:

- MWS Citizens Oversight Committee;
- Home Builders Association; and
- Chamber of Commerce.

6. Coordinating with Other Agencies

Other representatives, including state and federal agencies, will be asked to join the CPT, as necessary. Likely candidates include:

- FEMA;
- National Weather Service (NWS);
- U.S. Army Corps of Engineers (USACE);
- National Resource Conservation Service (NRCS);
- Tennessee State Emergency Management Agency (TEMA); and
- Tennessee State NFIP Coordinator.

These agencies and organizations involved in hazard mitigation will be contacted and, in the case of the more active ones, will be visited and interviewed. The objective is to determine what activities these agencies and organizations are currently implementing that impact hazard mitigation and what things which could be done to help mitigate losses in the Metro area.

The draft *Multi-Hazard Mitigation Plan* will be sent to these agencies and organizations for their review. Comments will be requested before the final public meeting.

**D
R
A
F
T**



7. Deliverables

The following deliverables will be provided as a result of the kick-off meeting.

- Draft text for resolution for the Metro Council to create the Community Planning Team and Public Input Advisory Committee, specifying its duties and appointing the chair or co-chairs.
- Draft text for resolution for the municipalities, committing them to cooperate with the effort and participate in the process. The resolution will identify the community's level of effort and who will represent it.
- Draft text for press releases that explain the project. The press releases will include information on how people can participate and submit their comments or concerns. Members of the CPT will be encouraged to provide the press release to their community newsletters and other local media.
- Draft text for the Metro website will be created to keep inquirers abreast of progress and to solicit their input. It will include items such as information on the planning process, the schedule of CPT meetings, and a questionnaire on people's hazard experiences and recommendations.
- Invitations to appropriate coordinating agencies.

**D
R
A
F
T**

8. Next Meeting

The second meeting of the CPT is tentatively scheduled for Thursday, March 18th. The hazard identification data will be presented and the goals and objectives for the *Multi-Hazard Mitigation Plan* will be established.

The first meeting of the PIAC is also anticipated to follow the CPT meeting. This meeting will be similar to the CPT meeting, presenting the hazard identification and goals, as well as include a portion of the introductory information from CPT Meeting #1.



MEETING MINUTES

Metropolitan Nashville and Davidson County

Multi-Hazard Mitigation Plan

MEETING #2 – HAZARD IDENTIFICATION

9:30 – 12:00 AM, April 22, 2004

1. Attendance

The DMA planning regulations and guidance ardently stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the process. The Community Planning Team (CPT) is composed of Metro staff and stakeholders. The following members attended the second CPT meeting:

Attendee	Agency / Company	Phone	E-mail
Winston Smith	NES	747-3777	wsmith@nespower.com
Kevin Penney	OEM	880-2951	Kevin.penney@nashville.gov
Kim McDonough	Planning	862-7181	Kim.McDonough@nashville.gov
Tom Palko	MWS	862-4510	Tom.Palko@nashville.gov
Daniel Smith	MWS	862-4799	Daniel.Smith@nashville.gov
Stan Robinson	MWS – Admin	862-4516	Stan.Robinson@nashville.gov
James Tarpy	MWS – Admin	862-4503	Jim.Tarpy@nashville.gov
Manley Biggers	Metro Codes	862-6521	Manley.Biggers@nashville.gov
Wade Hill	Metro Codes	862-6520	Wade.Hill@nashville.gov
Floyd Hyde	MNPD	880-3015	Floyd.Hyde@nashville.gov
Cynthia Popplewell	AMEC	333-0630 ext. 129	Cynthia.Popplewell@amec.com
Clancy Philipsborn	AMEC	(303) 742-5333	Clancy.Philipsborn@amec.com

**D
R
A
F
T**



The CPT is expected to meet five times during the planning process. Meeting dates are scheduled for 4th Thursday of each month:

- January 9th – Kickoff Meeting;
- April 22nd – Hazard Identification;
- **May 27th – Risk Assessment and Goal Setting;**
- **June 24th – Review Possible Mitigation Activities; and**
- **July 22nd – Draft Plan.**

2. Review of the Planning Process

Review of the 10-step mitigation planning process and outlined planning steps #4 and #5 – Hazard Identification and Risk Assessment.

3. Presentation and Review of Community Hazard Identification Data

The Draft Hazard Identification was distributed to the CPT. The hazard identification includes details on the causes of hazards, the likelihood of occurrence, severity, and extent of areas affected. The natural hazards identified and investigated in the Nashville-Davidson County area include:

- Dam and Levee Failure;
- Drought / Wildfire; - Update to Brushfire
- Earthquake;
- Extreme Temperatures;
- Flood;
- Infestations;
- Landslides; - Update to Geologic Hazards and add sinkholes;
- Thunderstorms / High Winds;
- Tornadoes; and
- Winter Storms

The CPT discussed each natural hazard and associated historical events. An additional two week comment period will allow the CPT to further review the documents and return any questions or comments to Cindy Popplewell – May 6th Deadline. All comments from the CPT will be incorporated into a single document for final review and placement on the community website.

**D
R
A
F
T**



4. Data Collection Needs

During the preparation of the hazard identification, missing or limited data was identified and existing capabilities were noted. The CPT provided either contact names or agreed to provide information. The following action items / deliverables were noted during the meeting:

Agricultural Extension Service

- Historical Crop Damage information

Fire Marshall – Danny Hunt

- Historical Brush fire information
- Water Rescue capability

MWS – Tom Palko

- Location Map / Information on additional dams in Davidson County
- List of areas typically barricaded to prevent residents from driving through standing flood waters

NES – Winston Smith

- For Presidential Disaster Declarations – financial expenditures for NES
- Emergency Operations Plan with TVA
- Vegetation Management Plan
- Summary of power pole inspection program
- Special Needs database – critical homes for health/safety

OEM – Kevin Penney

- Additional Disaster Declaration Information
- State Mutual Aid Compact - Summary

Planning – Kim McDonough

- Are mobile homes specifically designated in the parcel database?
- Development trends for watersheds – Land Use Plan
- Shapefile of Dams/Lakes in Davidson County
- Shapefile of soils data – Dellrose soils
- Geotechnically critical lots

USACE – Kyle Hayworth

- Flood inundation mapping information for Wolf Creek Dam
- Does the MetroCenter Levee protect to the 500-year event?
- Can the USACE provide a dollar value for the amount of savings both dams are providing in reducing flood frequency and severity of flooding?

Additional Contacts:

- Mike Murphy – NWS Hydrologist
- Bob Snead – USACE Engineer

***D
R
A
F
T***



The existing capabilities of the City and County to mitigate disasters and the impacts of hazard events was also discussed.

Capability	Nashville - Davidson County
Comprehensive Plan	Land Use Policy Plan – Divided by designated sub-areas within Davidson County. Updated on a rotating sub-area schedule.
Land Use Plan	
Subdivision Ord	Subdivision Regulation administered by the Planning Department
Zoning Ordinance	
NFIP/FPM Ordinance	Ordinance #78-840
Floodway Buffer Ordinance	50' outside Floodway
- Map Date	2001
- Substantial Damage language?	Cumulative Substantial Damage
- Certified Floodplain Manager?	No ASFPMA certified Floodplain Managers
- # of Floodprone Buildings?	Approximately 10,000 bldg footprints within floodplain
- # of NFIP policies	Approximately 2,500 policies in force
- Maintain Elevation Certificates?	Yes
- # of Repetitive Losses?	70 structures; 1,000 structures identified in repetitive loss areas
CRS Rating, if applicable	9
Stormwater Program?	Yes
Building Code Version	2000 IRC; 2000 IBC
Full-time Building Official	Yes, Metro Codes Department
- Conduct "as-built" Inspections?	At time of framing an elevation certificate is required
BCEGS Rating	Commercial – 4; Residential – None
Local Emergency Operations Plan	Yes
Hazard Mitigation Plan	Yes
Warning System in Place?	
- Storm Ready Certified?	Yes
- Weather Radio reception?	100 % with back-up transmitter
- Outdoor Warning Sirens?	Yes
- Emergency Notification (R-911)?	Yes
- Other? (e.g., cable over-ride)	Yes cable over-ride; EAS message; FCC requirement No – for satellite TV homeowners
GIS System?	Yes – Metro and NES
- Hazard Data?	Floodplains, parcels, soils
- Building footprints?	Yes
- Tied to Assessor data?	Yes
- Land-Use designations?	Yes, within parcel data – different than zoning code
Structural Protection Projects	Levees – MetroCenter and Opryland
Property Owner Protection Projects	Buyouts and Elevations; Flood protection/ retrofit not typical
Critical Facilities Protected?	Water Treatment plants – yes; Sewage Treatment plants – no Program in place to upgrade to submersible pumps
Natural Resources Inventory?	Through TDEC has database – wetlands, endangered species, tree cover; hyperspectral also available
Cultural Resources Inventory?	Yes – Historic Administration; Information should be parcel based
Erosion Control procedures?	Yes – Regulations
Sediment Control procedures?	Yes – Regulations
Public Information Program/Outlet	Billing Stuffers; Website – MWS has Public Information Officer;
Environmental Education Program?	meet NPDES public information requirements.

**D
R
A
F
T**



4. Next Meeting

The third meeting of the CPT is scheduled for Thursday, May 27th. The Risk Assessment will be presented, Mitigation Goals will be developed and the next Planning Step – Review Possible Activities, will be explained to the CPT members.

***D
R
A
F
T***



MEETING MINUTES

Metropolitan Nashville and Davidson County

Multi-Hazard Mitigation Plan

MEETING #3 – RISK ASSESSMENT AND GOAL SETTING

10:30 am – 12:30 pm, May 27, 2004

1. Attendance

The DMA planning regulations and guidance ardently stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the process. The Community Planning Team (CPT) is composed of Metro staff and stakeholders. The following members attended the third CPT meeting:

Attendee	Agency / Company	Phone	E-mail
Winston Smith	NES	747-3777	wsmith@nespower.com
Kevin Penney	OEM	880-2951	Kevin.penney@nashville.gov
Kim McDonough	Planning	862-7181	Kim.McDonough@nashville.gov
Larry Vannozzi	National Weather Service	754-8500 ext. 222	Larry.Vannozzi@noaa.gov
Ronald Holt	Metro Fire	862-5230	Rholt@nashville.gov
Tom Palko	MWS	862-4510	Tom.Palko@nashville.gov
Wade Hill	Metro Codes	862-6520	Wade.Hill@nashville.gov
Manley Biggers	Metro Codes	862-6521	Manley.Biggers@nashville.gov
Stan Robinson	MWS – Admin	862-4516	Stan.Robinson@nashville.gov
Daniel Smith	MWS	862-4799	Daniel.Smith@nashville.gov
James Tarpy	MWS – Admin	862-4503	Jim.Tarpy@nashville.gov
Cynthia Popplewell	AMEC	333-0630 ext. 129	Cynthia.Popplewell@amec.com
Clancy Philipsborn	AMEC	(303) 742-5333	Clancy.Philipsborn@amec.com
Byron Hinchey	AMEC	333-0630 ext. 132	Byron.Hinchey@amec.com

**D
R
A
F
T**



The CPT is expected to meet five times during the planning process. Meeting dates are scheduled for 4th Thursday of each month:

- January 9th – Kickoff Meeting;
- April 22nd – Hazard Identification;
- May 27th – Risk Assessment and Goal Setting;
- **June 24th – Review Possible Mitigation Activities; and**
- **July 22nd – Review Draft Plan.**

2. Update on Status of the Planning Process

Step 1. Get Organized - COMPLETED

Step 2. Plan for Public Involvement

The Stormwater Regulation Review Committee will be utilized as the Public Input Committee for Multi-Hazard Planning purposes. Kick-off Meeting and Hazard Identification data has been forwarded to the Committee Members. The first meeting of the Committee is scheduled for June 24th, 5:30 – 8:30pm at our AMEC Office.

Step 3. Coordinate with Other Departments - COMPLETED

Step 4. Identify the Hazards – IN PROCESS

Step 5. Assess the Risks – IN PROCESS

In order to complete the Hazard Identification and Risk Assessment, the following items need to be collected and/or incorporated:

Fire Marshall – Danny Hunt

- Historical Brush fire information
- Water Rescue Capability

MWS – Tom Palko

- Location Map / Information on additional dams in Davidson County
- List of areas typically barricaded to prevent residents from driving through standing flood waters

Planning – Kim McDonough

- Are mobile homes specifically designated in the parcel database?
- Development trends for watersheds – Land Use Plan
- Shapefile of Dams/Lakes in Davidson County
- Shapefile of soils data – Dellrose soils
- Geotechnically critical lots

USACE – Kyle Hayworth

- Flood inundation mapping information for Wolf Creek Dam
- Can the USACE provide a dollar value for the amount of savings both dams are providing in reducing flood frequency and severity of flooding?

Step 6. Set Planning Goals - COMPLETED

Step 7. Review / Analyze / Select Possible Activities

Step 8. Draft an Action Plan

**D
R
A
F
T**



Step 9. Adopt the Plan

Step 10. Implement the Plan, Evaluate its Worth, and Revise as Needed.

3. Goal Setting

Up to now, the CPT has been involved in talking to agencies and organizations and collecting and recording facts. From these discussions we have produced:

1. The Hazard Identification, and
2. The Vulnerability Assessment

which have “painted a picture” of the vulnerability of Metropolitan Nashville and Davidson County to natural hazards. We have learned that:

1. Stream system and neighborhood flooding continues to be a significant threat to the community
2. Geological hazards including landslides and sinkholes are a moderate threat.
3. Earthquakes pose a potential threat
4. Most meteorological and natural biological hazards occur periodically: drought, extreme temperatures, infestations, severe thunderstorms/high wind, tornadoes, and severe winter storms.

Through a Mitigation Capability Assessment, describing the current ability of Metropolitan Nashville and Davidson County to counter these threats through existing policies, regulations, programs, and procedures, we have learned that:

1. Flood insurance is available, but only approximately 2,500 policies are in force with 10,000 parcels located within the floodplain.
2. Critical facilities need to be protected (sewage treatment plants, pumping stations, power substations, etc).
3. Existing Floodplain Management Plan for Repetitive Loss Areas.
4. Metro does not support flood protection and retrofitting as standard solutions for residential flooding problems.
5. Current Stormwater Regulation Review Committee is reviewing and formulating recommendations for stormwater regulations.
6. Have prioritized Capital Improvements as outlined in Watershed Basin Plans.
7. Have prioritized watersheds throughout the County for preparing/updating Basin Plans.
8. IRC Building Codes contain seismic and design wind elements.

***D
R
A
F
T***



9. Residential plans review performed on complex designs only.
10. Public information could be made available to inform residents about the risks from hazards (earthquakes, floods, and tornadoes predominantly) and appropriate risk reduction actions that they can undertake.
11. Community has updated Warning Siren Capabilities. Flood warning capabilities could be improved. Is there potential to coordinate stream gauging with NPDES water quality requirements.
12. Program in place to upgrade protection of sewage treatment facilities.

Draft Goals defined by the CPT and further refined by AMEC are as follows:

GOAL: Reduce exposure to hazard related losses for existing and future development.

Objective: Strengthen the existing flood hazard mitigation program.

Objective: Develop a coordinated set of mitigation actions which address geological hazards (earthquakes, sinkholes, and landslides).

Objective: Improve the coordination of severe weather mitigation actions.

Objective: Protect critical facilities, utilities, and infrastructure.

CPT Suggestions:

- Reduce exposure to hazard related losses (5)
- Protect health and safety of residents (2)
- Ensure the quality of life in Metro Nashville and Davidson County
- Protection for Future Development
- Protect utilities – gas, electric, etc.
- Provide protection for fire and water services
- Improve County capability to mitigate losses (2)
- Protection for Public Services
- Provide protection for utilities from hazard impacts (4)
- Provide protection for people's lives and property from hazards (2)
- Use the most effective approaches to protect structures from the effects of natural disasters
- Manage flood hazard areas

**D
R
A
F
T**



GOAL: Promote awareness of hazards and vulnerability among citizens, business, industry and government.

Objective: *Develop a seasonal multi-hazard public education campaign to be implemented annually.*

CPT Suggestions:

- Provide Information to residents, business, floods, etc. through utility mailouts
- Provide information to residents/businesses about the hazards facing the community (2)
- Develop and implement a seasonal multi-hazard public education campaign.
- Educate the Public on community hazards
- Community-wide public information program targeting natural hazards
- Increase public awareness of vulnerability to hazards (2).
- Create an on-going community wide public information program

GOAL: Maximize use of available funding.

Objective: *Identify multiple objective opportunities that can be used to support mitigation activities.*

Objective: *Identify and analyze project cost share options.*

Objective: *Submit mitigation project applications annually at a minimum.*

CPT Suggestions:

- Maintain FEMA Eligibility
- Maintain Coordination of Disaster Plans with changing DHS/FEMA needs (2)
- Utilize funds in the most effective manner (5)

***D
R
A
F
T***



4. Next Meeting

The fourth meeting of the CPT is scheduled for **Thursday, June 24th, 9:30am at our AMEC Office**. Potential mitigation alternatives and projects addressing pre- and post-disaster opportunities will be identified. AMEC will lead a discussion where mitigation alternatives will be presented, and Committee members will be asked for their input about the alternatives. In developing mitigation alternatives to address all of the hazards within the Planning Area, the Committee should adhere to the model of mitigation activities promoted by DMA, CRS and FMA, which categorizes mitigation measures into the following six categories:

- Preventative Measures;
- Property Protection;
- Emergency Services Measures;
- Structural Projects;
- Natural Resource Protection; and
- Public Information Programs.

The first meeting of the Public Committee is also scheduled for June 24th, 5:30 – 8:30pm.

***D
R
A
F
T***



MEETING MINUTES

Metropolitan Nashville and Davidson County

Multi-Hazard Mitigation Plan

MEETING #4 – REVIEW POSSIBLE MITIGATION ACTIVITIES

9:30 am – 12:30 pm, June 24, 2004

1. Attendance

The DMA planning regulations and guidance ardently stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the process. The Community Planning Team (CPT) is composed of Metro staff and stakeholders. The following members attended the fourth CPT meeting:

Attendee	Agency / Company	Phone	E-mail
Jerry Orchanian	NWS	754-8506 ext. 223	Jerry.Orchanian@noaa.gov
Michael Murphy	NWS	754-8506 ext. 228	Michael.Murphy@noaa.gov
Ryan Latimer	Metro Planning	862-7214	Ryan.Latimer@nashville.gov
James Tarpy	MWS – Admin	862-4503	Jim.Tarpy@nashville.gov
Ronald Holt	Metro Fire	862-5230	Rholt@nashville.gov
Tom Palko	MWS	862-4510	Tom.Palko@nashville.gov
Daniel Smith	MWS	862-4799	Daniel.Smith@nashville.gov
Kevin Penney	OEM	880-2951	Kevin.Penney@nashville.gov
Clancy Philipsborn	AMEC	(303) 742-5333	Clancy.Philipsborn@amec.com
Byron Hinchey	AMEC	333-0630 ext. 132	Byron.Hinchey@amec.com
April Barker	AMEC	333-0630 ext. 189	April.Barker@amec.com

The CPT is expected to meet five times during the planning process. Meeting dates are scheduled for 4th Thursday of each month:

- January 9th – Kickoff Meeting;
- April 22nd – Hazard Identification;
- May 27th – Risk Assessment and Goal Setting;
- June 24th – Review Possible Mitigation Activities; and
- **July 29th – Review Draft Plan.**

PLEASE NOTE THE JULY MEETING IS SCHEDULED FOR THE 29TH, THE FIFTH THURSDAY OF THE MONTH.



**D
R
A
F
T**

2. Update on Status of the Planning Process

Step 1. Get Organized - COMPLETED

Step 2. Plan for Public Involvement

The Stormwater Regulation Review Committee will be utilized as the Public Input Committee for Multi-Hazard Planning purposes. Kick-off Meeting and Hazard Identification data has been forwarded to the Committee Members. The first meeting of the Committee was held for June 24th, 5:30 – 8:30pm.

Step 3. Coordinate with Other Departments - COMPLETED

Step 4. Identify the Hazards – COMPLETED

Step 5. Assess the Risks – IN PROCESS

In order to complete the Hazard Identification and Risk Assessment, the following items need to be collected and/or incorporated:

MWS – Tom Palko

- Location Map / Information on additional dams in Davidson County – Palko has this info
- List of areas typically barricaded to prevent residents from driving through standing flood waters – Palko contacting Public Works

Planning – Ryan Latimer

- Are mobile homes specifically designated in the parcel database? Yes
- Development trends for watersheds – Land Use Plan - there isn't one
- Shapefile of Dams/Lakes in Davidson County - Ryan will get this

USACE – Kyle Hayworth

- Flood inundation mapping information for Wolf Creek Dam
- Can the USACE provide a dollar value for the amount of savings both dams are providing in reducing flood frequency and severity of flooding?

Step 6. Set Planning Goals - COMPLETED

Step 7. Review / Analyze / Select Possible Activities – IN PROCESS

Step 8. Draft an Action Plan – IN PROCESS;

Draft Plan to be submitted to CPT for review on July 22nd, prior to the meeting on the 29th.

Step 9. Adopt the Plan

Step 10. Implement the Plan, Evaluate its Worth, and Revise as Needed.

3. Review Possible Mitigation Activities

Possible mitigation activities for the flooding hazard have been identified in several existing documents: (1) CRS Floodplain Management Plan (for Repetitive Loss Areas) Oct. 2002; (2) CRS Plan of Action July, 2003; (3) Watershed Study Prioritization July 2003; (4) Prioritization of recommended capital improvements presented within the Watershed Basin Plans; and (5) OEM Local Hazard Mitigation Plan February 2001. The mitigation activities will be organized and consolidated into the Multi-Hazard Mitigation Plan in order to prevent duplication of previous flood mitigation planning efforts.



For the remaining hazards including geological and severe weather hazards, the CPT discussed the following mitigation measures:

Prevention

- Geo-hazards are adequately prevented through notification of known hazards to permit applicant
- Severe winter storm impacts prevented by tree trimming around electrical wires and replacing aging power poles.

Emergency Services

- Improving data sharing between MWS and NWS on rain and stream gages
- Improving coordination between Metro, NWS, and OEM (i.e. reverse 911)
- Dam failure notification for dams in adjacent counties that drain into Davidson Co
- Inventory tornado “safe” places / shelters. Provide information to community
- Participate in training for RSDE (Residential Substantial Damage Estimator)

Property Protection

- Will work for flood hazard only; prioritize projects by repetitive loss and cluster areas (already done).

Natural Resource and Structural Protection

- Primarily addressed with flood hazards

Public Information

- Safe rooms, securing of roofs and foundations, and strengthening garage doors (wind mitigation techniques) should all be addressed through public education. Consider displaying models at schools, OEM, NWS, Home Depot, Lowes, etc.
- Public education on geological hazards (EQ risk and actions), publicize landslide and sinkhole risk areas (and appropriate actions to take)
- Public Education on flood hazards and flood insurance availability
- Winter storm tips (driving, emergency preparedness kits)
- Combine all into annual, seasonal, public info campaign
- Establish Public Info Committee with responsibility for Public Info Strategy under CRS

The possible mitigation measures identified in existing sources or by the CPT will be described in further detail in the Draft Plan for each category and will include an assigned department of responsibility and estimated cost.

***D
R
A
F
T***



4. Next Meeting

The fifth meeting of the CPT is scheduled for Thursday, July 29th, 9:30am at our AMEC Office. Based on information collected during each of the tasks including the Hazard and Risk Assessment, the Setting of Goals and Objectives, and Review of Possible Activities, a DRAFT multi-hazard Mitigation Action Plan will be prepared and distributed digitally on July 22nd for review prior to the fifth CPT Meeting. At the fifth CPT Meeting AMEC will solicit comments that committee members might have and work to further improve and prioritize the Recommended Mitigation Actions.

5. Public Input Advisory Committee

The first meeting of the Public Input Advisory Committee (PIAC) was held on the evening of June 24th. The Committee was introduced to the hazard mitigation planning process and the requirements of DMA 2000. The current status of the planning process for Metro Nashville was discussed. The PIAC was concerned about the opportunity to discuss potential mitigation activities and provide input on target groups for public education. It was agreed that the 2nd draft would be provided to the PIAC when first made available so that they might help with its distribution and review prior to the subsequent Public Meetings.

***D
R
A
F
T***



MEETING MINUTES

Metropolitan Nashville and Davidson County

Multi-Hazard Mitigation Plan

MEETING #5 – REVIEW POSSIBLE MITIGATION ACTIVITIES

9:30 am – 12:30 pm, July 29th, 2004

1. Attendance

The DMA planning regulations and guidance ardently stress that each local government seeking the required FEMA approval of their mitigation plan must participate in the process. The Community Planning Team (CPT) is composed of Metro staff and stakeholders. The following members attended the fifth CPT meeting:

Attendee	Agency / Company	Phone	E-mail
Ryan Latimer	Metro Planning	862-7214	Ryan.Latimer@nashville.gov
Larry Vannozzi	NWS	754-8500	Larry.Vannozzi@noaa.gov
Ronald Holt	Metro Fire	862-5230	Rholt@nashville.gov
Danny Hunt	Metro Fire	862-5250	Danny.Hunt@nashville.gov
Kevin Penney	OEM	880-2951	Kevin.Penney@nashville.gov
Manley Biggers	Metro Codes	862-6521	Manley.Biggers@nashville.gov
James Tarpy	MWS – Admin	862-4503	Jim.Tarpy@nashville.gov
Daniel Smith	MWS	862-4799	Daniel.Smith@nashville.gov
Clancy Philipsborn	AMEC	(303) 742-5333	Clancy.Philipsborn@amec.com
Cindy Popplewell	AMEC	333-0630 ext. 129	Cynthia.Popplewell@amec.com

The CPT is expected to meet six times during the planning process. Meeting dates are scheduled for 4th Thursday of each month:

- January 9th – Kickoff Meeting;
- April 22nd – Hazard Identification;
- May 27th – Risk Assessment and Goal Setting;
- June 24th – Review Possible Mitigation Activities;
- July 29th – Review Possible Mitigation Activities;
- September 16th – Review Public Comments/Final Comments on Draft Plan.



**D
R
A
F
T**

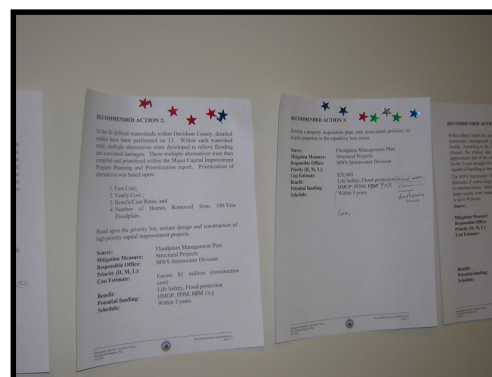
2. Update on Project Schedule

August 13 th	– 1 st Draft Plan complete, submit to CPT and SWR2C for review
August 19 th	– SWR2C Meeting; receive comments
August 20 th	– Comments due from CPT
August 30 th	– 2 nd Draft Plan complete, all comments incorporated. – Post Draft Plan to “www.nashville.gov” website
September 15 th	– Public Meeting
September 16 th	– Final CPT Meeting to review comments and address any final concerns.
October 1 st	– Submit 3 rd Draft Plan to TEMA

3. Review Possible Mitigation Activities

Possible mitigation activities developed by the CPT and identified in existing documents mitigation documents were organized and consolidated for the Multi-Hazard Mitigation Plan. The CPT reviewed each recommended action for accuracy and completeness. Next, the CPT was provided with several decision making criteria sets in order to help decide why one recommendation might be more important or effective than another.

Following the review, a prioritization exercise was conducted. CPT members were provided with colored “stars” – 3 red, 3 blue, and 3 green. Each color represented either high, medium, or low priority with regard to the importance, and each color was assigned a corresponding value (high = 5 points, medium = 3 points, and low = 1 point). CPT members then voted for their preferred mitigation measures by placing their “stars” on the specific mitigation measure. Team members were allowed to place as many of any or all colors on any one recommendation or to spread them among multiple mitigation actions. They were allowed to trade “stars”, or otherwise negotiate with any other Team member, and they did not have to use all of their “stars” if they so chose. This process provided both consensus and priority for the CPT recommendations.



Prioritization “Stars”

The mitigation measures were prioritized as follows:

High Priority

- Develop Public Awareness Program
- Design/Construction of prioritized capital improvements
- Develop ordinance for Critical Facility Protection
- Develop detailed flood response plan based on flood level predictions



Medium Priority

- Perform detailed studies of approximate A zones
- Develop of property acquisition plan
- Develop flood crest prediction programs for streams other than Cumberland and Harpeth Rivers
- Purchase Equipment and software upgrades for OEM
- Continue annual mailout to floodplain residents
- Develop stream dumping regulations
- Install of flood-warning gages
- Formalize MWS inspection and maintenance program of storm water system
- Identify, collect, review of geological hazard ordinances from other communities
- Verify enforcement of regulatory standards for flood hazard
- Train of MWS maintenance staff in retrofit guidance

Low Priority

- Work to amend Tennessee's dam safety laws
- Pursue Cooperating Technical Partner agreement with FEMA
- Develop financial strategy to design and construct large capital improvement projects
- Post elevation certificate data on "www.nashville.gov" website
- Develop mitigation strategies for severe weather hazards
- Adopt a policy to ensure that all floodprone lands purchased with public funds have deed restrictions attached.

There are two additional recommendations that were developed by the CPT in Meeting #4 which were inadvertently not addressed, but will be included in the 1st Draft Plan:

- Inventory existing "tornado safe" places/shelters and provide information to community; and
- Participate in RSDE (Residential Substantial Damage Estimator) training.

4. Next Meeting

The sixth meeting of the CPT is scheduled for **Thursday, September 16th, 9:30am at our AMEC Office.** A public meeting will be held the evening before, Wednesday September 15th. The CPT meeting will discuss any comments received from the public as well as any final comments from the CPT to be incorporated into the document prior to submittal to TEMA.

5. Public Input

The first meeting of the Stormwater Regulation Review Committee (SWR2C) was held on the evening of June 24th. The Committee was introduced to the hazard mitigation planning process and the requirements of DMA 2000. The Draft Multi-Hazard Mitigation Plan will be submitted to the members of the SWR2C for review on August 13th. The SWR2C will meet again on August 19th and comments from the Draft Plan will be received.



After incorporating comments from the SWR2C and CPT, the Draft Plan will be posted to the www.nashville.gov website and placed in several public libraries for the public. A formal *Public Meeting* is scheduled for Wednesday, September 15th, 6:30 to 8:00 pm. Once the location is finalized, the public meeting will be advertised, including a formal public notice.

***D
R
A
F
T***

